What is claimed is:

1. A malfunction detection circuitry for a dielectric etch system comprising:

a comparator coupling between a magnet driver of the dielectric etch system and a coil of a plurality of coils of the dielectric etch system; and,

a relay coupling the comparator to ground and turning off a power source for the dielectric etch system when the comparator yields a substantially non-zero current, indicating that a malfunction has been detected in one or more of the magnet driver and the coil.

2. The malfunction detection circuitry of claim 1, further comprising a second comparator coupling between a second magnet driver of the dielectric etch system and a second coil of the plurality of coils of the dielectric etch system, the second comparator connected in parallel with the comparator, such that the relay couples the comparator and the second comparator as connected in parallel with one another to ground and turns off the power source when at least one of the comparator and the second comparator yields a substantially non-zero current, indicating that a malfunction has been detected in one or more of the magnet driver, the second magnet driver, the coil, and the second coil.

3. The malfunction detection circuitry of claim 1, further comprising a normally open switch coupling the relay to the power source for the dielectric etch system, such that the relay closes the normally open switch when the comparator yields the substantially non-zero current.

4. The malfunction detection circuitry of claim 3, wherein the relay further comprises a second normally open switch between the normally open switch and a negative voltage, such that the substantially non-zero current causes the second normally open switch to close, which in turn causes the normally open switch to close.

5. The malfunction detection circuitry of claim 1, wherein the comparator compares current running between the magnet driver and the coil to a configurable preset current, such that the comparator yields the substantially non-zero current when the current running between the magnet driver and the coil varies from the configurable preset current by more than a predetermined threshold.

6. The malfunction detection circuitry of claim 5, wherein the predetermined threshold is substantially zero.

7. A dielectric etch system comprising:

a plasma chamber in which a semiconductor wafer is placed to remove dielectric therefrom;

a plurality of coils positioned around the plasma chamber to excite plasma in the plasma chamber;

a magnet driver circuitry having one or more magnet drivers to provide a configurable preset current from a power source for the dielectric etch system to the plurality of coils;

a plurality of comparators, each comparator coupling between one of the one or more magnet drivers and one of the plurality of coils, the plurality of comparators connected in parallel with one another; and,

a relay coupling the plurality of comparators to ground and turning off the power source when any of the plurality of comparators yields a substantially non-zero current, indicating that a malfunction has been detected in one or more of the magnet drivers and the plurality of coils.

8. The dielectric etch system of claim 7, further comprising a normally open switch coupling the relay to the power source for the dielectric etch system, such that the relay closes the normally open switch when any of the plurality of comparators yields the substantially non-zero current.

9. The dielectric etch system of claim 8, wherein the relay further comprises a second normally open switch between the normally open switch and a negative voltage, such that the substantially non-zero current causes the second normally open switch to close, which in turn causes the normally open switch to close.

10. The dielectric etch system of claim 7, wherein each comparator compares current running between a magnet driver and a coil to a configurable preset test current, such that the comparator yields the substantially non-zero current when the current varies from the configurable preset test current by more than a predetermined threshold.

11. The dielectric etch system of claim 10, wherein the predetermined threshold is substantially zero.

12. The dielectric etch system of claim 7, wherein the plurality of comparators and the relay constitute a malfunction detection circuitry for the dielectric etch system.

13. A method for detecting a malfunction in a dielectric etch system comprising:

sensing current between a magnet driver of the dielectric etch system and a coil of a plurality of coils of the dielectric etch system;

setting a configurable test current that the current sensed between the magnet driver

and the coil should substantially normally be when the dielectric etch system is operating properly;

comparing the current sensed between the magnet driver and the coil to the configurable test current; and,

upon determining that the current sensed between the magnet driver and the coil is unequal to the configurable test current by more than a predetermined threshold, performing a malfunction action.

14. The method of claim 13, wherein the malfunction action comprises triggering an alarm.

15. The method of claim 13, wherein the malfunction action comprises turning off power to the dielectric etch system.

16. The method of claim 13, wherein the predetermined threshold is substantially zero.

17. The method of claim 13, wherein comparing the current sensed between the magnet driver and the coil to the configurable test current comprises using a comparator having input thereto the current sensed between the magnet driver and the coil and the configurable test current.

18. The method of claim 17, wherein the malfunction action comprises turning off power to the dielectric etch system by a relay coupling the comparator to ground, such that the comparator yields a substantially non-zero current when the current sensed between the magnet driver and the coil is unequal to the configurable test current by more than the predetermined threshold.

19. The method of claim 18, wherein the substantially non-zero current causes a normally open switch of the relay to close.

20. The method of claim 19, wherein the normally open switch of the relay closing causes a second normally open switch coupling the relay to a power source for the dielectric etch system to close, which turns off power to the dielectric etch system.